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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,115	03/20/2006	Aleksandr Kolesnikov	016002-004310US	8222

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TOWNSEND AND TOWNSEND AND CREW, LLP  
TWO EMBARCADERO CENTER  
EIGHTH FLOOR  
SAN FRANCISCO, CA 94111-3834

EXAMINER
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CHU, YONG LIANG

ART UNIT	PAPER NUMBER
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1626

MAIL DATE	DELIVERY MODE
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06/14/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/537,115

Applicant(s)

KOLESNIKOV ET AL.

Examiner

Yong Chu

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-10 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: preliminary search

## **DETAILED ACTION**

Claims 1-10 are currently pending in the instant application and are subject to the following lack of unity requirement.

### ***Election/Restrictions***

Restriction is required under 35 U.S.C. 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

Claims 1-10 are drawn to more than one inventive concept (as defined in PCT Rule 13), and accordingly, a restriction is required according to the provision of PCT Rule 13.2

PCT Rule 13.2 states that the international application shall relate to one invention only or to a group of inventions so linked as to form a general inventive concept (requirement of unity of invention).

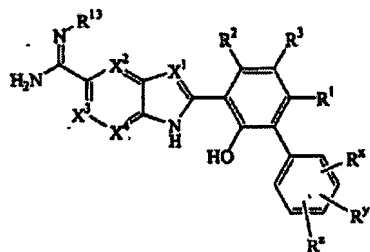
PCT Rule 13.2 states that unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features.

Due to lack of core structure and the numerous and widely divergent variables in the compound of formula (I)-(II) e.g.  $X^1-X^4$ ,  $R^1-R^{30}$ ,  $R^x$ ,  $R^y$ , etc., the general formula I contains various distinct special technical features. A preliminary search of the inventions on STN found 371 compounds sharing the core structure (see attached STN

preliminary search report). Therefore the inventions are lack of unity. For this reason, further restriction is required. A precise listing of inventive groups cannot be made.

The following groups are exemplary, and may be subject to further restriction:

Group I: Claims 1-4 are drawn to products of formula (I)



wherein X<sup>1</sup> is -N-, X<sup>2</sup> is -N-, X<sup>3</sup> is -N-, and X<sup>4</sup> is -N-, or a

composition comprising the said product. This group may be subject to further restriction if elected.

Group II: Claims 1-4 are drawn to products of formula (I) wherein X<sup>1</sup> is -N-, X<sup>2</sup> is -N-, X<sup>3</sup> is -N-, and X<sup>4</sup> is -CR<sup>5</sup>-, or a composition comprising the said product. This group may be subject to further restriction if elected.

Group III: Claims 1-4 are drawn to products of formula (I) wherein X<sup>1</sup> is -N-, X<sup>2</sup> is -N-, X<sup>3</sup> is -CR<sup>5</sup>-, and X<sup>4</sup> is -N-, or a composition comprising the said product. This group may be subject to further restriction if elected.

Group IV: Claims 1-4 are drawn to products of formula (I) wherein X<sup>1</sup> is -N-, X<sup>2</sup> is -N-, X<sup>3</sup> is -CR<sup>5</sup>-, and X<sup>4</sup> is -CR<sup>5</sup>-, or a composition comprising the said product. This group may be subject to further restriction if elected.

Group V: Claims 1-4 are drawn to products of formula (I) wherein X<sup>1</sup> is -N-, X<sup>2</sup> is -CR<sup>5</sup>-, X<sup>3</sup> is -N-, and X<sup>4</sup> is -N-, or a composition comprising the said product. This group may be subject to further restriction if elected.

Group VI: Claims 1-4 are drawn to products of formula (I) wherein  $X^1$  is  $-N-$ ,  $X^2$  is  $-CR^5-$ ,  $X^3$  is  $-N-$ , and  $X^4$  is  $-CR^5-$ , or a composition comprising the said product. This group may be subject to further restriction if elected.

Group VII: Claims 1-4 are drawn to products of formula (I) wherein  $X^1$  is  $-N-$ ,  $X^2$  is  $-CR^5-$ ,  $X^3$  is  $-CR^5-$ , and  $X^4$  is  $-N-$ , or a composition comprising the said product. This group may be subject to further restriction if elected.

Group VIII: Claims 1-4 are drawn to products of formula (I) wherein  $X^1$  is  $-N-$ ,  $X^2$  is  $-CR^5-$ ,  $X^3$  is  $-CR^5-$ , and  $X^4$  is  $-CR^5-$ , or a composition comprising the said product. This group may be subject to further restriction if elected.

Group IX: Claims 1-4 are drawn to products of formula (I) wherein  $X^1$  is  $-CR^5-$ ,  $X^2$  is  $-N-$ ,  $X^3$  is  $-N-$ , and  $X^4$  is  $-N-$ , or a composition comprising the said product. This group may be subject to further restriction if elected.

Group X: Claims 1-4 are drawn to products of formula (I) wherein  $X^1$  is  $-CR^5-$ ,  $X^2$  is  $-N-$ ,  $X^3$  is  $-N-$ , and  $X^4$  is  $-CR^5-$ , or a composition comprising the said product. This group may be subject to further restriction if elected.

Group XI: Claims 1-4 are drawn to products of formula (I) wherein  $X^1$  is  $-CR^5-$ ,  $X^2$  is  $-N-$ ,  $X^3$  is  $-CR^5-$ , and  $X^4$  is  $-N-$ , or a composition comprising the said product. This group may be subject to further restriction if elected.

Group XII: Claims 1-4 are drawn to products of formula (I) wherein  $X^1$  is  $-CR^5-$ ,  $X^2$  is  $-N-$ ,  $X^3$  is  $-CR^5-$ , and  $X^4$  is  $-CR^5-$ , or a composition comprising the said product. This group may be subject to further restriction if elected.

Group XIII: Claims 1-4 are drawn to products of formula (I) wherein  $X^1$  is  $-CR^5-$ ,  $X^2$  is  $-CR^5-$ ,  $X^3$  is  $-N-$ , and  $X^4$  is  $-N-$ , or a composition comprising the said product.

This group may be subject to further restriction if elected.

Group XIV: Claims 1-4 are drawn to products of formula (I) wherein  $X^1$  is  $-CR^5-$ ,  $X^2$  is  $-CR^5-$ ,  $X^3$  is  $-N-$ , and  $X^4$  is  $-CR^5-$ , or a composition comprising the said product.

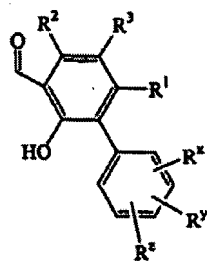
This group may be subject to further restriction if elected.

Group XV: Claims 1-4 are drawn to products of formula (I) wherein  $X^1$  is  $-CR^5-$ ,  $X^2$  is  $-CR^5-$ ,  $X^3$  is  $-CR^5-$ , and  $X^4$  is  $-N-$ , or a composition comprising the said product.

This group may be subject to further restriction if elected.

Group XVI: Claims 1-4 are drawn to products of formula (I) wherein  $X^1$  is  $-CR^5-$ ,  $X^2$  is  $-CR^5-$ ,  $X^3$  is  $-CR^5-$ , and  $X^4$  is  $-CR^5-$ , or a composition comprising the said product. This group may be subject to further restriction if elected.

Group XVII: Claim 9 is drawn to intermediate products of formula (II)



. This group is subject to further restriction if elected.

Group XVIII: Claims 5-8 are drawn to a method of using the said compound or composition for the treatment of various diseases or disorders. This group may be subject for further restriction if elected.

Group XIX: Claim 10 is drawn to a process of preparing the said compound.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted. The elected group is subject to further restriction.

Again, this list is not exhaustive as it would be impossible under the time constraints due to the sheer volume of subject matter instantly claimed. Therefore, applicant may choose to elect a single invention at the similar scope as the examples shown supra (a product or a method of use of said product) by identifying another specific embodiment, i.e. another group, not listed in the exemplary groups of the invention and examiner will endeavor to group the same. ***Applicant also needs to elect a single compound as the elected species for initial search purpose.***

The claims herein lack unity of invention under PCT rule 13.1 and 13.2 since, under 37 CFR 1.475(a) the compounds defined in the claims lack a significant structural element qualifying as the special technical feature evidenced by formula I' with numerous and widely divergent variables in the compound of formula (I').

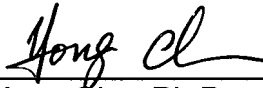
Accordingly, unity of invention is considered to be lacking and restriction of the invention in accordance with the rules of unity of invention is considered to be proper. Additionally, the vastness of the claimed subject matter, and the complications in understanding the claimed subject matter imposes a serious burden on any examination of the claimed subject matter.

***Telephone Inquiry***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Chu whose telephone number is 571-272-5759. The examiner can normally be reached on 7:00 am - 3:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on (571) 272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Yong Chu, Ph.D.  
Patent Examiner, AU 1626



REBECCA ANDERSON  
PATENT EXAMINER

for Joseph K. McKane  
Supervisory Patent Examiner  
AU 1626